

1 **CLAIMS:**

2 Having thus described our invention, what we claim as new
3 and desire to secure by Letters Patent is as follows:

4 1. A method comprising:

5 routing a first portion of information to a first device and
6 at least one other portion of information to at least one
7 other device in response to a user's query, said method
8 including:

9 receiving said query and identifying said user's meeting a
10 first identification criterion;

11 forming an identification when said first identification
12 criterion is met;

13 employing said identification in forming said first portion
14 of information and said at least one other portion of infor-
15 mation; and

16 forwarding said first portion of information to said first
17 device and said at least one other portion of information to
18 said at least one other device.

19 2. A method as recited in claim 1, wherein said step of
20 identifying is performed by an identifier, and step of
21 employing is performed by a respondent server.

1 3. A method as recited in claim 1, wherein said first device
2 is a user device employed in making said query, and said
3 step of identifying includes identifying said user device
4 employing identification criteria.

5 4. A method as recited in claim 3, wherein one of said
6 identification criteria is a criterion selected from a group
7 of criteria including: identifying a device identification;
8 identifying a device group identification; identifying a
9 user identification; identifying a user group
10 identification; authenticating user of said device by user
11 identification and password; employing a verification signa-
12 ture included in said query; employing an RF id tag; employ-
13 ing a 3rd party mechanism; and
14 any combination of said criteria.

15 5. A method as recited in claim 3, wherein said step of
16 identifying further includes verifying said user meeting a
17 verification criteria.

18 6. A method as recited in claim 5, wherein said verification
19 criterion is a criterion selected from a group of criteria
20 including: verifying a device identity; verifying a device
21 group identity; verifying a user identity; verifying a user
22 group identity; authenticating user of said device by user
23 identification and password; employing a verification signa-
24 ture included in said query; employing an RF id tag; employ-
25 ing a 3rd party device; and

1 any combination of said criteria.

2 7. A method as recited in claim 1, further comprising a
3 first entity supplying said first device to a user.

4 8. A method as recited in claim 7, wherein said first entity
5 is a business and said user is a customer.

6 9. A method as recited in claim 5, further comprising:

7 said user employing said first device in a session; and

8 associating said user for said session employing said
9 verification.

10 10. A method as recited in claim 2, wherein said respondent
11 server is also said identifier.

12 11. A method as recited in claim 1, wherein said step of
13 receiving said query [and identifying] said user's meeting a
14 first identification criterion, includes at least one step
15 from a group of steps including:

16 user pre-registering query; utilizing user criteria; select-
17 ing a hyper-link; sending mail.

18 12. A method as recited in claim 1, wherein said first
19 portion of information includes private user information and
20 said at least one other portion of information includes
21 public information.

1 13. A method as recited in claim 1, wherein content included
2 in said first portion of information and/or included in said
3 at least one other portion of information is based on a
4 preference criterion.

5 14. A method as recited in claim 13, wherein said preference
6 criterion is a criterion selected from a group of criteria
7 including: security level; user profile; user data; user
8 history; preferred customer status; user affiliation; user
9 service level association; time of day; day of year; relig-
10 ion; ethnic background; national background; gender; sexual
11 orientation; demographic information; context; inventory;
12 classification level; and

13 any combination of the above.

14 15. A method as recited in claim 14, further comprising
15 changing preference criteria dynamically.

16 16. A method as recited in claim 15, wherein said step of
17 changing preference criteria is performed dynamically during
18 a session.

19 17. A method as recited in claim 16, wherein preference
20 criteria change dynamically during a session by a user.

21 18. A method as recited in claim 1, further comprising
22 forming a user profile database for a plurality of users.

1 19. A method as recited in claim 13, further comprising
2 forming a user profile database for a plurality of users
3 based on said preference criteria.

4 20. A method as recited in claim 16, wherein said step of
5 forming is repeated in accordance with a database update
6 criterion.

7 21. A method as recited in claim 20, wherein said database
8 update criterion is a criterion selected from a group of
9 criteria including:

10 change of preference criteria by user; change of identifica-
11 tion criteria; information access; change of context; and

12 any combination of the above criteria.

13 22. A method as recited in claim 18, wherein said step of
14 forming an identification when said first identification
15 criterion is met, includes:

16 identifying user; and

17 associating said user with said user profile.

18 23. A method as recited in claim 1, wherein said step of
19 forming an identification when said first identification
20 criterion is met, includes:

21 identifying user;

1 associating said user with said identification criterion;

2 24. A method as recited in claim 18, wherein said step of
3 forming an identification when said first identification
4 criterion is met includes:

5 associating said identification criterion with user profile.

6 25. A method as recited in claim 19, wherein said step of
7 employing said identification in forming said first portion
8 of information and said at least one other portion of infor-
9 mation, includes:

10 creating rules for forming said first portion and said at
11 least one other portion based on said preference criteria;

12 employing said rules to form said first portion and said at
13 least one other portion;

14 26. A method as recited in claim 1, wherein said step of
15 forwarding includes encrypting said first portion with a
16 first encryption key and/or encrypting at least one of said
17 at least one other portion with at least one other encryp-
18 tion key.

19 27. A method as recited in claim 26, further comprising at
20 least one encrypting marker indicating that one of said
21 portions is encrypted.

22 28. A method as recited in claim 27, wherein at least one of
23 said at least one encrypting markers is encrypted.

1 29. A method as recited in claim 27, wherein each marker in
2 a plurality of said at least one of said at least one
3 encrypting markers is a unique marker indicating requirement
4 of a unique decrypting key.

5 30. An apparatus comprising:

6 means for routing a first portion of information to a first
7 device and at least one other portion of information to at
8 least one other device in response to a user's query, said
9 means for routing including:

10 means for receiving said query and identifying said user's
11 meeting a first identification criterion;

12 means for forming an identification when said first identi-
13 fication criterion is met;

14 means for employing said identification in forming said
15 first portion of information and said at least one other
16 portion of information; and

17 means for forwarding said first portion of information to
18 said first device and said at least one other portion of
19 information to said at least one other device.

20 31. A method comprising employing a communications network
21 to which terminal devices are attached for executing browser
22 applications capable of rendering digital information organ-
23 ized into documents, said communication network having at

1 least one database attached for storing digital information
2 organized into documents and being capable of supplying said
3 documents for rendering to said browser applications in said
4 terminal devices, wherein users of said terminal devices are
5 each able to engage in at least one interactive browsing
6 application for viewing a sequence of a plurality of said
7 documents, wherein at least one document from said sequence
8 comprises at least one identifiable portion is associated
9 with particular users belonging to at least one identifiable
10 group of users of said terminal devices, said method includ-
11 ing the steps:

12 a plurality of said users identifying themselves as belong-
13 ing to one of said at least one identifiable group of users,
14 and wherein at least one particular user identifies oneself
15 as belonging to a first group of users, said users

16 interacting with at least one of the terminal devices in
17 browsing a sequence of at least one document supplied from
18 one database of said at least one document database, and

19 rendering a first portion of a particular document associ-
20 ated with said first group of users during the duration of
21 one interactive application, wherein the document databases
22 supply a sequence of information documents to the terminal
23 devices, at least one of the terminal devices being used by
24 the users in the first group of users.

25 32. A method as related in claim 31, wherein said first
26 portion of a document which is associated with the users in
27 the first group of users, includes less than the entire

1 document at least once in said sequence of documents
2 rendered on the terminals used by users belonging to the
3 first group, and further comprising at least one step taken
4 from a group of steps including:

5 rendering a second portion of the document not identified as
6 belonging to the first portion of the document to at least
7 one other terminal device while not rendering said first
8 portion of the document;

9 assigning a different portion of the document not identified
10 as belonging to the first portion of the document to belong
11 to a third portion of the document which is associated with
12 users of terminals belonging to a second group of users;

13 associating at least one portion of each said document with
14 user terminals belonging to an identifiable group of users;
15 and

16 rendering each of said portions of said document only on the
17 terminals used by a particular group of users associated
18 with said particular portion of the document.

19 33. A method as recited in claim 31, further comprising at
20 least one step taken from a group of steps including:
21 identifying said user via digital information provided via
22 at least one terminal device used by said user;

23 wherein a device identifier is a unique identifier assigned
24 to a network interface card attached to said terminal device
25 to the computer communications network, and

1 identifying the user via user information provided through
2 the terminal devices used by said user;

3 identifying said user via user information provided during a
4 log-in action to said interactive browsing application for
5 viewing a sequence of documents from one document database;

6 using said digital information for user identification for
7 associating the user with a particular group of users;

8 disassociating the user with the particular group of users
9 after a defined period of inactivity on a communications
10 link;

11 requiring new user identification upon start of a continua-
12 tion of activity;

13 using said digital information for user identification for
14 associating the user with a particular group of users;

15 disassociating the user with the particular group of users
16 upon user log-off; and

17 requiring new user identification upon a next log-in.

18 34. The method as recited in claim 31, further comprising
19 at least one step taken from a group of steps including:

20 said user receiving at least one other portion of a document
21 based on at least one criterion;

1 employing said criteria in associating various portions of
2 said document according to one or more levels of preference;

3 relating said levels of preference to a degree of privacy
4 for each portion of each document;

5 forming said criteria as being users belonging to at least
6 one group of users during at least one session;

7 storing said criteria together with a document;

8 storing said criteria for each user group in a user group
9 profile in a database;

10 updating said user group profile in the database with new
11 criteria during at least one session; and

12 updating said user group profile in the database with new
13 criteria based on a history of document accesses.

14 35. In a computer communications network with at least one
15 terminal computer and at least one server computer, a method
16 comprising using a unique identifier of a terminal computer
17 as a unique identifier of its user, said method including
18 the steps of:

19 a user using the terminal computer to authenticate said user
20 with at least one server;

1 said server receiving a unique device identifier from said
2 terminal computer;

3 said server using said user authentication and/or unique
4 device identifier in creating an association between said
5 user and said terminal computer, and

6 maintaining said association in effect in accordance with a
7 maintenance policy.

8 36. A method comprising:

9 distributing data containing private information to multiple
10 recipients;

11 breaking said data into at least one fragment; and

12 encrypting each fragment using one encryption key.

13 37. The method as recited in claim 36, wherein each of
14 said recipients is a member of at least one group sharing an
15 encryption key, and/or further comprising at least one step
16 taken from a group of steps including:

17 each of said recipients decoding fragments of the data using
18 said encryption key and deciding whether a result is valid
19 based on information in the data;

20 adding meta information to at least one encrypted fragment;

1 adding each encoded fragment with at least one wrapper
2 around it to the final document;

3 adding meta information to at least one fragment before
4 encryption;

5 wrapping each fragment with at least one wrapper;

6 the decoder deciding whether the decoded fragment is valid
7 based on meta information; and

8 the decoder matching the meta information of the encrypted
9 fragment with the meta information of the decoded fragment.

10 38. A method comprising:

11 employing a computer display terminal used for executing at
12 least one interactive application by at least two groups of
13 users, said method including the steps:

14 identifying each of said users of the display terminal as
15 belonging to a particular one of said groups of users;

16 engaging a user interactive application through the display
17 terminal;

18 associating each at least one interactive application with
19 said particular one of said groups;

1 each user using the interactive applications from said
2 particular one of said groups of users and sharing computer
3 display computing resources; and

4 managing partitions in displaying differing information to
5 each group.

6 39. The method as recited in claim 38, further comprising
7 at least one step taken from a group of steps including:

8 using said display sequentially for each of said group;

9 switching between pluralities of interactive applications
10 suitable to each group of users after a defined period of
11 time.

12 40. The method as recited in claim 39, wherein:

13 the computer resources that manage what is displayed on the
14 display terminal share the display among the groups of users
15 that use it in space simultaneously, and/or

16 space occupied by each of the interactive applications on
17 the display changes with time; and/or

18 the computer resources that manage what is displayed on the
19 display terminal share the display in time and/or space
20 among the group of users using the display terminal.

21 41. The method as recited in claim 40, wherein the
22 computer resource that manages what is displayed on the

1 display terminal shares the display in time and/or space
2 among the group of users using the display terminal, and
3 further comprising restricting the maximum number of users
4 that can view a particular interactive application on the
5 display terminal to a preset maximum number of users, and/or
6 groups of users engaged in interactive applications through
7 the display terminal time sharing the display terminal when
8 the preset maximum number of users is exceeded.

9 42. An article of manufacture comprising a computer usable
10 medium having computer readable program code means embodied
11 therein for causing information routing, the computer
12 readable program code means in said article of manufacture
13 comprising computer readable program code means for causing
14 a computer to effect the steps of claim 1.

15 43. An article of manufacture comprising a computer usable
16 medium having computer readable program code means embodied
17 therein for causing information routing, the computer
18 readable program code means in said article of manufacture
19 comprising computer readable program code means for causing
20 a computer to effect the steps of claim 31.

21 44. An article of manufacture comprising a computer usable
22 medium having computer readable program code means embodied
23 therein for causing identifier usage, the computer readable
24 program code means in said article of manufacture comprising
25 computer readable program code means for causing a computer
26 to effect the steps of claim 35.

1 46. An article of manufacture comprising a computer usable
2 medium having computer readable program code means embodied
3 therein for causing executing at least one interactive
4 application by at least two groups of users, the computer
5 readable program code means in said article of manufacture
6 comprising computer readable program code means for causing
7 a computer to effect the steps of claim 38.

8 47. A program storage device readable by machine, tangibly
9 embodying a program of instructions executable by the
10 machine to perform method steps for information routing,
11 said method steps comprising the steps of claim 1.

12 48. A computer program product comprising a computer usable
13 medium having computer readable program code means embodied
14 therein for causing routing, the computer readable program
15 code means in said computer program product comprising
16 computer readable program code means for causing a computer
17 to effect the functions of claim 30.